

WHAT IS CLAIMED AS NEW AND DESIRED TO BE SECURED BY LETTERS PATENT
OF THE UNITED STATES IS:

1. A waste toner collecting device comprising:

a container which is detachably set in an image forming apparatus and contains therein a waste toner produced in the image forming apparatus and which has such a shape as to fit into a free space of the image forming apparatus; and
a waste toner transport device which transports the waste toner in the container.

10

2. The waste toner collecting device according to Claim 1, wherein one of surfaces of the container is opposed to a surface of a member of the image forming apparatus.

15

3. The waste toner collecting device according to Claim 2, wherein the member is a cleaning unit which includes plural cleaners and which is slantingly arranged, and wherein the one of surfaces of the container is slanted in a same direction as that of the cleaning unit.

20

4. The waste toner collecting device according to Claim 3, wherein the one of surfaces of the container is slanted at substantially a same angle as that of the cleaning unit.

25

5. The waste toner collecting device according to Claim 3, wherein the container comprises one or more openings which are connected with the cleaning unit via at least one waste toner

feeding passage of the image forming apparatus.

6. The waste toner collecting device according to Claim 5, wherein at least one of the one or more openings is located 5 at a highest position of the container.

7. The waste toner collecting device according to Claim 5, wherein the container has plural openings, and wherein the plural openings are arranged at regular intervals.

10

8. The waste toner collecting device according to Claim 5, wherein the one or more openings are arranged on the slanted surface or a side surface of the container.

15

9. The waste toner collecting device according to Claim 5, wherein the one or more openings have an area greater than an area of a cross section of the at least one waste toner feeding passage.

20

10. The waste toner collecting device according to Claim 3, wherein the waste toner transport device comprises:

at least one waste toner transporter which is arranged in the container and which transports the waste toner in the container; and

25

a driving device configured to drive the waste toner transporter.

11. The waste toner collecting device according to Claim 1, wherein the waste toner transporter is configured to transport the waste toner in such a direction that the waste toner is distanced from the one or more openings.

5

12. The waste toner collecting device according to Claim 3, wherein the waste toner transport device transports the waste toner in the container in a direction of from a portion of the container having a shortest height toward a portion thereof 10 having a longest height.

13. The waste toner collecting device according to Claim 10, wherein the waste toner transport device includes plural waste toner transporters in the container.

15

14. The waste toner collecting device according to Claim 10, wherein the at least one waste toner transporter comprises at least one of a screw and a belt.

20

15. The waste toner collecting device according to Claim 14, wherein the at least one waste toner transporter is located below the one or more openings.

25

16. The waste toner collecting device according to Claim 12, wherein the waste toner transporter has a different transporting capacity in each portion of the container such that the transporting capacity is inversely proportional to a height

of the portion of the container.

17. The waste toner collecting device according to Claim 10, wherein the driving device comprises:

5 a driving motor; and

 a drive force transmitting device configured to transmit a driving force of the motor to the at least one waste toner transporter.

10 18. The waste toner collecting device according to Claim 17, wherein the drive force transmitting device comprises either a group of gears including a spur gear or another group of gears including a bevel gear, and wherein the spur gear or the bevel gear is provided on an end of the at least one waste toner transporter.

15 19. The waste toner collecting device according to Claim 1, wherein the container comprises a support member on a bottom surface thereof.

20

 20. The waste toner collecting device according to Claim 3, wherein the container comprises a waste toner containing portion therein, which does not have a slanted surface.

25

 21. An image forming apparatus comprising:

 an image bearing member;

 a cleaning device configured to collect a residual toner

present on the image bearing member; and
the waste toner collecting device according to Claim 1.